

NOVEMBER/DECEMBER 2023

FAMB32 — BIO INSTRUMENTATION

Time : Three hours

Maximum : 75 marks



SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is Svedberg Unit?
2. Define Centrifugation.
3. Define Cuvette.
4. Expand NMR.
5. Who Coined the term Chromatography?
6. Define Adsorbents.
7. Define P^H .
8. Who Coined the term Electrophoresis?
9. What is the Half life for C^{14} element?
10. Expand GM.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the principle of Centrifugation.

Or

(b) Write about the various types of Centrifuges.

12. (a) Explain the Beer-Lambert's Law.

Or

(b) Define Infra-red spectroscopy. Write about the types of detectors used in IR.

13. (a) Give concise note on thin layer chromatography.

Or

(b) Discuss briefly about Paper Chromatography technique.

14. (a) Write note on Ouchterlony test.

Or

(b) Describe about Nucleic acid separation using electrophoresis.

15. (a) Write note on Biosensor.

Or

(b) Comment on Scintillation counter.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Give an account on Ultra Centrifuge.

17. Discuss in detail the principle and Instrumentation of UV-VISIBLE Spectrophotometer.

18. Discuss the principle and applications of HPLC.

19. Discuss about SDS-PAGE.

20. Give elaborate account on Autoradiography.

